

IOWA DEPARTMENT OF NATURAL RESOURCES

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- 1. Smog season arrives
- 2. Changes in rules affect construction of confinements
- 3. New permit form for building confinements
- 4. DNR to issue open feedlot permit for new technology
- 5. DNR introduces new watershed improvement sections
- 6. DNR SWAP grant recipient wins national award

SMOG SEASON ARRIVES

DES MOINES—Smog season is here, the time of year when air pollution can form in hot temperatures and bright sunshine and the Department of Natural Resources is actively monitoring pollution levels, say state officials.

"The state has nearly a dozen ozone monitors across Iowa that run April through September — the time of year when heat and strong sunlight can cook vehicle exhaust, factory emissions, fumes and chemicals to form ozone smog," said Brian Button, DNR air information specialist.

He said summer smog levels can make air quality unhealthy for some people such as children and asthmatics if they are out-of-doors for long periods of time exercising, working or playing. He said large areas of the state can be affected and that pollutants can be blown into Iowa from other parts of the nation.

Iowa's air quality meets federal health standards, but "every year, we have some elevated pollution levels and we issue advisories to local media," said Button. "Iowa's air is far better than many areas of the nation where pollution is routine and at higher levels than what we occasionally have."

He said our clean air status saves Iowans millions of dollars annually in reduced health care and regulatory costs.

Daily air quality is reported using the Air Quality Index, a numerical and color-coded reporting system which includes health cautions for sensitive populations.

On high pollution days, minimizing vigorous outdoor activity is good advice, he said, especially for sensitive populations.

Iowans can help minimize emissions by conserving electricity, properly maintaining vehicles and reduced driving. "Those efficiency actions are also money savers," he said. State air quality conditions are posted at www.iowacleanair.com. National data is posted at www.airnow.gov.

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CHANGES IN RULES AFFECT CONSTRUCTION OF CONFINEMENTS

DES MOINES – Livestock and poultry producers who need a permit to build, modify or expand a confinement feeding operation need to be aware of some recent rule changes.

One change expands the number of people who can do a groundwater determination from engineers to engineers, certified groundwater professionals and qualified Natural Resources Conservation Service (NRCS) employees.

"It's very important that producers accurately identify the groundwater table before building," said Sara Smith, a DNR engineer. "All confinement pits and manure storage, regardless of size, must be installed above the groundwater table or the groundwater table must be lowered."

The new rules also provide more options for determining where the groundwater table is located.

In other rule changes, producers who are applying for a construction permit should be aware that construction must be completed within four years or the permit will expire. For producers who have an existing permit, construction must be completed by June 15, 2012. All permit holders must begin construction within a year or the permit is invalid.

Finally, confinement producers with more than 500 animal units who plan to install a permanent manure transfer piping system must apply for a construction permit. Permits are not required for draglines used in manure application.

Generally, construction permits are required to build, modify or expand a confinement feeding operation that uses earthen storage, and any operation that will have more than 1,000 animal units using concrete or steel manure storage.

For more information, contact Sara Smith at (515) 242-5521.

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NEW PERMIT FORM FOR BUILDING CONFINEMENTS

DES MOINES – A new and better form is available from the DNR for producers who must apply for construction permits when planning to build, modify or expand a confinement feeding operation.

"The new forms were designed to make it easier for producers and to help us streamline the process since we are receiving so many applications this year," said Sara Smith, a DNR permit engineer.

Tables for calculating animal weight capacity and fees have been added to the form.

Also new, the form includes three different checklists – one for those who must have an engineer, one for those not required to have an engineer and one for those building an earthen structure. "Now producers can pick the checklist that applies to their situation and ignore the rest," Smith said.

Although electronic submittal is not yet possible, producers are now able to fill information in right on their computers, then print the form, sign it and submit it.

Smith asks anyone submitting a form to the DNR or the county to place the construction application on top of the submittal package. "This can prevent the construction application being mistaken for a manure management plan, a mistake that can delay construction if public notice is not published or the county doesn't evaluate the master matrix," she said.

Forms are available on the DNR Web site under animal feeding operations at www.iowadnr.com. Information on pre-construction requirements including how to determine if a site has alluvial soils, or is in a floodplain, karst or a sinkhole area is also available on the web.

For more information, contact Sara Smith at (515) 242-5521.

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DNR TO ISSUE OPEN FEEDLOT PERMIT FOR NEW TECHNOLOGY

DES MOINES – The DNR will issue a permit to the Couser Feedlot in Nevada this week, a permit that uses a new modeling system and vegetative filter technology to keep manure and nutrients in place.

"The two-year, conditional permit will allow Bill Couser to expand his existing operation from 1300 to 2500 head of beef cattle using nature to treat the effluent," said Reza Khosravi, DNR permitting engineer. "With intensive management and monitoring, this is an alternative to using an earthen basin to store the manure."

With the vegetative or alternative technology (AT), grassy treatment areas, sometimes combined with grassy infiltration areas, treat the feedlot runoff to remove nutrients and pathogens. With the conventional technology, manure solids are removed and liquids are held in an earthen basin to be used later as fertilizer.

"This pilot project is one of five unique projects that use a new model to predict whether or not a producer's planned system will keep nutrients on the feedlot as well as a conventional system does," said Deb Frundle, a DNR geologist.

DNR engineer Reza Khosravi warns that alternative technologies may sound appealing to people, but they are not for everyone. For DNR to issue a permit the site must meet certain criteria and the modeling must show that the alternative technology can perform as well as one of the existing basin systems.

Frundle said that producers considering alternative technology must have a site that meets the DNR's siting criteria, available on the DNR Web site at www.iowadnr.com. "The system's success is dependent on the soils and vegetation providing treatment," said Frundle. "So, it is critical that all aspects of a prospective site be taken into consideration: soils, slope, distance to streams, depth to groundwater and the producer's management skills."

Most important, producers must do extensive monitoring of the site to prove that the effluent is being treated sufficiently to equal a conventional system.

"Producers should remember that this is an unproven technology and one that requires active management," Frundle said. "You can't walk away from this type of system. The vegetated areas have to be managed and maintained for treating feedlot effluent."

At the end of two years, if a feedlot can't show monitoring results that prove equivalent performance, than the DNR will require the producer to install a conventional system.

A team from Iowa State University developed the model. A national committee of technical experts from the Natural Resources Conservation Service, several land grant universities, private consultants and the DNR reviewed the model and required some modifications. The model was finally completed and approved in June, 2005.

The model will be used to predict the annual pollutant load for biochemical oxygen demand, nitrate, ammonia, phosphorous, chloride, dissolved oxygen, suspended and dissolved solids, temperature, pH and e-coli bacteria. Monitoring of the same pollutants will determine how well the system actually performs.

Open feedlots with more than 1,000 animal units are required to have a national pollutant discharge elimination system (NPDES) permit. A construction permit from the DNR is also required before building or expanding a lot that will hold more than 1,000 animal units. Smaller lots may be required to have a permit if they are discharging directly to a stream.

Alternative technologies can be used by open feedlots that are not required to have a permit without the modeling or monitoring requirements provided there is no discharge to a water of the state.

For more information, contact Deb Frundle at (515) 242-6849.

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DNR INTRODUCES NEW WATERSHED IMPROVEMENT SECTIONS

DES MOINES — Two new DNR sections will bring together water quality knowledge and expertise to improve Iowa's water quality from a watershed approach.

The two new sections, the Watershed Assessment Section and Watershed Improvement Section, will work with local watershed groups, professional organizations, volunteers and other environmental groups to increase Iowans' knowledge of watershed issues and to make meaningful changes in watersheds to improve water quality.

Current Water Quality Assessment staff will join the DNR's Water Monitoring Section to create the new Watershed Assessment Section. The section will work to identify water quality problems in watersheds and suggest ways to improve water quality.

The new Watershed Improvement Section will include staff from the Nonpoint Source Pollution Control Program and Total Maximum Daily Load (TMDL) staff. This section will work with local watershed groups to implement watershed projects.

"We're putting staff together in a way to more effectively address watershed issues," said Tim Hall, bureau chief of the Iowa Geological Survey and Land Quality Bureau, which will house the two new sections. "Before, we were all working towards the same goal, but we were in different bureaus. Now we'll be working together more closely on watershed improvement projects."

The two sections will provide technical assistance, training and support to local watershed groups and their local watershed improvement projects. The section changes will go into effect July 1.

For more information, contact Tim Hall at (515) 281-8169.

DNR SWAP GRANT RECIPIENT WINS NATIONAL AWARD

DES MOINES – With the goal of reducing the amount of solid waste generated and landfilled in Iowa, the DNR's Solid Waste Alternatives Program (SWAP) has helped many Iowa public and private groups, individuals and local governments by providing financial assistance through a competitive process. The program's success is evident in the recent national recognition of a West Des Moines company.

Corell Recycling was recently named the Best Concrete and Asphalt Recycling Facility in the nation from the Construction Materials Recycling Association. The Construction Materials Recycling Association (CMRA) annually recognizes one outstanding company in the country demonstrating the best practices in recycling concrete and asphalt into reusable aggregate, in safety procedures and in annual volumes.

"Corell Recycling serves as a model for other companies that have begun this type of recycling and has shown the value of recycled products," said Tom Anderson, senior environmental specialist at the DNR. "We are happy that our SWAP grant was able to help them achieve success in their production and reduce the amount of concrete and asphalt going to waste."

In 1995, Corell Recycling received a zero-interest loan from the DNR's Landfill Alternatives Financial Assistance Program (now known as SWAP). Corell used the funds to purchase a larger crusher and other equipment that enabled the company to more than double its processing capability and to meet U.S. Department of Transportation (DOT) specifications. In 2004, the company produced approximately 250,000 tons of reusable products.

Corell Recycling has provided various recycled materials for several projects in the Des Moines metro area including the Iowa Events Center and reconstruction of Sec Taylor Field.

SWAP has awarded 488 grants totaling \$57 million since 1988. Application forms for SWAP grants are available at www.iowadnr.com/waste/financial/.

For more information, contact Tom Anderson with the DNR at (515) 281-8623 or Tom.Anderson@dnr.state.ia.us.